



# BREASTFEEDING AND HIV/AIDS

## Frequently Asked Questions (FAQ)

FAQ SHEET 1

From the LINKAGES Project

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HIV passes via breastfeeding to about 1 out of 7 infants born to HIV-infected women. But in many situations where there is a high prevalence of HIV, the lack of breastfeeding is also associated with a three- to five-fold increase in infant mortality. Infants can die from either the failure to appropriately breastfeed or from the transmission of HIV through breastfeeding.

Furthermore, less than five percent of adults have access to HIV testing. In many countries with high prevalence of HIV, uninfected women may think they have the virus. In the absence of breastfeeding promotion, they may stop breastfeeding even though breastfeeding remains one of the most effective strategies to improve the health and chances of survival of both mother and child.

FAQ Sheet is a series of publications of Frequently Asked Questions on topics addressed by the LINKAGES Project. This issue provides recommendations on breastfeeding and HIV. It reviews the latest information on the transmission of HIV via breastfeeding and provides programmatic guidance for field activities. Further information is available in publications listed at the end of this FAQ Sheet.

### How many infants are at risk of HIV?

**Risk to infants of HIV-infected mothers.** Analyses of data show that approximately 20 percent of infants of HIV-infected mothers are infected before or during delivery. If all HIV-infected mothers breastfeed, another 14 percent of

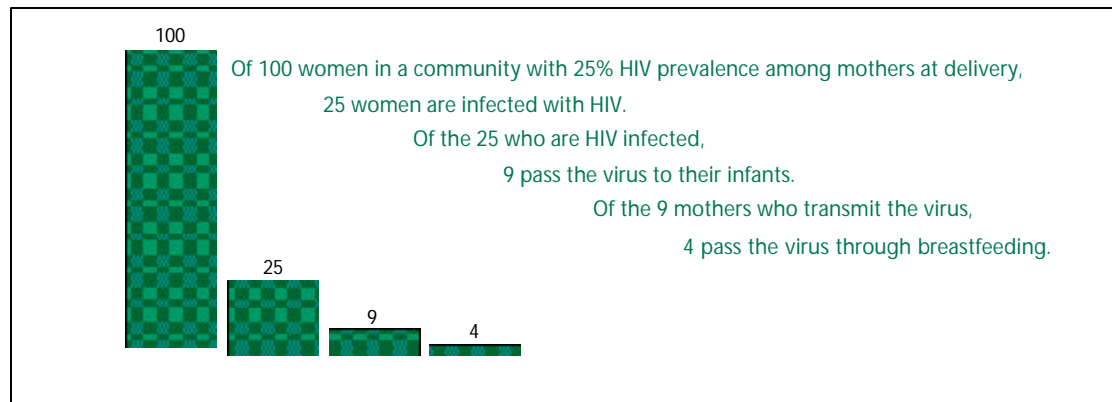
their infants will be infected through breastfeeding. This means that about two-thirds of children of HIV-infected women *will not* become infected.

#### **Risk to all infants in a community.**

Although the percentage of mothers infected with HIV approaches 40 percent in some African communities, it generally is much lower, rarely above 25 percent (one in four).

The risk of HIV transmission via breastfeeding can be calculated by multiplying the HIV prevalence rate among mothers at the time of delivery (25 percent in the example below) by 14 percent (25 percent at risk x 14 percent infected through breastfeeding = 3.5 percent, or rounded to 4 percent). In other words, even where 25 percent of women are infected with HIV and all of them breastfeed, less than 4 percent of all infants in the community will be infected through breastfeeding.

**Figure 1. Risk of Mother-to-Child Transmission of HIV in Communities in Developing Countries with 25 Percent HIV Prevalence**



*Should mothers with HIV be advised not to breastfeed?*

**IT DEPENDS . . .**

**IF** a mother knows she is infected, and

**IF** breastmilk substitutes are affordable and can be fed safely with clean water, and

**IF** adequate health care is available and affordable,

**THEN** the infant's chances of survival are greater if fed artificially.

**HOWEVER,**

**IF** infant mortality is high due to infectious diseases such as diarrhea and pneumonia, or

**IF** hygiene, sanitation, and access to clean water are poor, or

**IF** the cost of breastmilk substitutes is prohibitively high, or

**IF** access to adequate health care is limited,

**THEN** breastfeeding may be the safest feeding option even when the mother is HIV-positive.

Even where clean water is accessible, the cost of locally available formula exceeds the average household's income. Families cannot buy sufficient supplies of breastmilk substitutes and tend to:

- ♦ over-dilute the breastmilk substitute,
- ♦ under-feed their infant, or
- ♦ replace the breastmilk substitute with dangerous alternatives.

In the 50 poorest developing countries, infant mortality averages over 100 deaths per thousand live births. **Artificial feeding can triple the risk of infant death.**



*If a mother with HIV breastfeeds, how can she reduce the risk of transmission?*

HIV-positive women may be able to reduce the risk of transmission by:

- ♦ **Exclusively breastfeeding for the first six months.** Many experts believe that the safest way to breastfeed in the first six months is to do so exclusively, without adding any other foods or fluids to the infant's diet. These additions are not needed and may cause gut infections that could increase the risk of HIV transmission. In South Africa, mothers who reported exclusively breastfeeding for at least three months *were less likely* to transmit the virus to their infants than mothers who introduced other foods or fluids before three months. Moreover, their risk of transmitting the vi-

rus was no greater than among mothers who never breastfed.

- ♦ **Shortening the total duration of breastfeeding.** There is evidence that the risk of transmission continues as long as the infant is breastfed. The risk of death due to replacement feeding is greatest in the first few months and becomes lower over time. Therefore, in some cases the best strategy may be for a mother to stop breastfeeding early and to introduce breastmilk substitutes as soon as an available replacement method becomes safer. The optimum time and strategy for introducing substitutes, however, is not known and varies with the situation.
- ♦ **Preventing and promptly treating oral lesions and breast problems.** If an infant has oral lesions (commonly caused by thrush) or if a mother has breast problems such as cracked nipples or mastitis, the risk of transmission is higher.
- ♦ **Taking anti-retroviral drugs.** In a recent clinical trial in Uganda, a single dose of nevirapine to a mother during labor and another to her infant after delivery reduced transmission in breastfed infants by 42 percent through six weeks and by 35 percent through 12 months. The simplicity and lower cost of

the nevirapine regimen—compared with other regimens that are prohibitively expensive for most poor households—offers hope that it will become an important component of programs to reduce mother-to-child transmission. Studies are being conducted to find out if nevirapine used during the breastfeeding period can further reduce transmission.

### **What are the current international recommendations on breastfeeding and HIV?**

In May 1997, a policy statement was issued by UNAIDS—the United Nations system’s joint program on HIV/AIDS—whose sponsors include the World Health Organization and UNICEF. The statement, which is supported by technical advisers within USAID and LINKAGES, emphasizes supporting breastfeeding in all populations; improving access to HIV counseling and testing; providing information to empower parents to make fully informed decisions; reducing women’s vulnerability to HIV infection; and preventing commercial pressures to provide artificial feeding. It also recommends weighing the rates of illness and death from infectious diseases and the availability of

safe alternatives to breastfeeding, against the risk of HIV transmission when recommending feeding practices. The policy emphasizes the need for parents to make their own infant feeding decisions based on the best available information.

Subsequently, in 1998, the UN agencies published guidelines for policy makers and health care managers to help countries implement this policy. Pilot projects underway in many countries offer voluntary counseling and testing as a part of antenatal services. Pregnant women who test positive for HIV receive counseling on infant feeding options, among other things. To fully understand the positive and negative effects on feeding practices and infant health in the general population, it is important that these efforts are adequately monitored and evaluated.

The International Code of Marketing of Breastmilk Substitutes was introduced by the World Health Organization in 1981 to counter the negative effects of the introduction of breastmilk substitutes in developing countries. The Code’s provisions are particularly relevant in this era of HIV and should continue to be promoted and observed. The effects of a general reduction in breastfeeding practices would be disastrous for child health and survival.



## **How can an organization support breastfeeding while reducing mother-to-child transmission of HIV?**

### **Promote safer sexual behavior.**

The best way of protecting children from HIV is to help women avoid HIV infection. Most infection is through unprotected sexual intercourse. The risk of infection can be decreased by the use of condoms. Methods of protection that women themselves can control are urgently needed. Treating and preventing other sexually transmitted diseases can also help decrease the risk of HIV transmission. Improving the economic and social conditions of women and girls also would reduce their vulnerability to coercive and other unsafe sexual situations.

### **Provide universal access to voluntary and confidential HIV testing and counseling for both men and women.**

At present, testing is not generally available. Many of the strategies proposed for reducing mother-to-child transmission assume that the mother's HIV status is known. Even where testing is available, mothers often do not want to know their status or cannot be assured that test results will be confidential.

**Communicate the advantages of knowing one's HIV status.** If a mother knows she is infected, she

can try to minimize the risk of transmission to her partners and children and, if she chooses, avoid further pregnancies. As part of her counseling, she should be given information on the risks and benefits of infant feeding options. If she knows she is not infected, she should be counseled to breastfeed, knowing that there is no risk of infecting her child. She should also be motivated to protect herself from further risk of infection. Stimulating demand for testing by emphasizing these advantages along with ensuring the availability of confidential testing is essential.

### **Provide training to health workers and technical information to opinion makers.**

Health care providers and groups with public influence—such as the media, policy makers, and health advocates—need accurate technical information on this issue to prevent the spread of misinformation and to maintain the strength and credibility of breast-feeding promotion activities.

### **Provide counseling guidelines to health workers.**

UN agencies have developed counseling guidelines for health workers and policy makers that address the risks and benefits of available infant feeding methods and how to make the chosen method of infant feeding as safe as possible. However, until testing programs that help women know their HIV status are available, such guidelines are of limited use.

### **Continue to promote, protect, and support breastfeeding.**

In the absence of breastfeeding promotion, there is a danger that information about HIV transmission during breastfeeding will result in inappropriate discontinuation of breastfeeding among both infected and uninfected mothers. Breastfeeding promotion should include continued efforts to monitor the observance of the provisions of the International Code of Marketing of Breastmilk Substitutes and the use and misuse of information on breastfeeding and HIV.

**Support research.** Policies and programs remain hampered by uncertainty. We need to know more about factors that influence transmission rates and about the risks associated with different feeding alternatives in poor environments. Currently, the stage of infection, breastfeeding patterns and duration, related lesions and illness, anti-retroviral therapies, micronutrients, and nutritional status are all being explored as possible influences on transmission. In studies of infant feeding practices, there is a particular need to distinguish different patterns of breastfeeding using standard definitions. We also need to translate this information into knowledge that the mother can use to make the best infant feeding decision for herself, her baby, and her family.

**Box 1. HIV and Infant Feeding Counseling Guidelines in Resource-Poor Communities**

Situation	Health Worker Guidelines
Mother's HIV status is unknown	<ul style="list-style-type: none"><li>♦ Promote availability and use of confidential testing</li><li>♦ Promote breastfeeding as safer than artificial feeding*</li><li>♦ Teach mother how to avoid exposure to HIV</li></ul>
HIV-negative mother	<ul style="list-style-type: none"><li>♦ Promote breastfeeding as safest infant feeding method (exclusive breastfeeding for first 6 months, introduction of appropriate complementary foods at about 6 months, and continued breastfeeding to 24 months and beyond)</li><li>♦ Teach mother how to avoid exposure to HIV</li></ul>
HIV-positive mother who is considering her feeding options	<ul style="list-style-type: none"><li>♦ Treat with anti-retroviral drugs, if feasible</li><li>♦ Counsel mother on the safety, availability, and affordability of feasible infant feeding options</li><li>♦ Help mother choose and provide safest available infant feeding method</li><li>♦ Teach mother how to avoid sexual transmission of HIV</li></ul>
HIV-positive mother who chooses to breastfeed	<ul style="list-style-type: none"><li>♦ Promote safer breastfeeding (exclusive breastfeeding up to 6 months, prevention and treatment of breast problems of mothers and thrush in infants, and shortened duration of breastfeeding when replacements are safe and feasible)</li></ul>
HIV-positive mother who chooses to feed artificially	<ul style="list-style-type: none"><li>♦ Help mother choose the safest alternative infant feeding strategy (methods, timing, etc.)</li><li>♦ Support her in her choice (provide education on hygienic preparation, health care, family planning services, etc.)</li></ul>

\* Where testing is not available and where mothers' HIV status is not known, widespread use of artificial feeding would improve child survival only if the prevalence of HIV is high and if the risk of death due to artificial feeding is low, a combination of conditions that does not generally exist.

## Q What advice can health workers give to mothers?

Each situation is unique, and health workers must tailor their advice to the individual needs of each mother. Ultimately, the infant feeding choice is the mother's, but this decision should be based on the best information available. The role of the health worker is to provide this information and the support needed to make the mother's choice as safe as possible. Box 1 offers counseling guidelines for various situations.

For the woman who is not infected, breastfeeding is clearly the best choice. Breastfeeding remains one of the most effective strategies to improve the health and chances of survival of both the mother and child. It provides a complete and hygienic source of the infant's fluid and nutritional requirements through the first six months of life, as well as growth factors and antibacterial and antiviral agents that protect the infant from disease for up to two years and more. Breastfeeding also contributes to child spacing and women's long-term health.

## Q Does the same advice apply in emergency situations?

The same infant feeding guidelines apply in emergencies. The risk of death due to diarrhea and acute respiratory infections as well as malnutrition is likely to be even greater in emergencies than in normal circumstances.

## References

- Coutsoudis A, Pillay K, Kuhn L, Spooner E, Tsai W-Y, Coovadia HM. Method of feeding and transmission of HIV-1 from mothers to children by 15 months of age: prospective cohort study from Durban, South Africa. *AIDS* 15:379-387, 2001.
- De Cock KM, Fowler MG, Mercier E, de Vincenzi I, Saba J, Hoff E, Alnwick DJ, Rogers M, Shaffer N. Prevention of mother-to-child HIV transmission in resource-poor countries: Translating research into policy and practice. *JAMA* 283:1175-1182, 2000.
- Khun L, Stein Z. Infant survival, HIV infection, and feeding alternatives in less-developed countries. *Am J Public Health* 87:926B931, 1997.
- Nduati R, Ross J. Mother-to-Child Transmission of HIV through Breastfeeding: Strategies for Prevention. In: Lamptey PR, Gayle H. *HIV/AIDS Prevention and Care in Resource-Constrained Settings: A Handbook for the Management of Programs*. Family Health International: Arlington VA, in press.
- Nicoll A, Newell M-L, Peckham C, Luo C, Savage F. Infant feeding and HIV-1 infection. *AIDS* 14 (suppl 3): S57BS74, 2000.
- Preble EA, Piwoz EG. *HIV and Infant Feeding: A Chronology of Research and Policy Advances and their Implications for Programs*. A joint publication of the LINKAGES and Support for Analysis and Research in Africa (SARA) Projects. Academy for Educational Development: Washington, DC: 1998.
- Smith MM, Kuhn L. Exclusive breastfeeding: Does it have the potential to reduce breast-feeding transmission of HIV-1? *Nutr Rev* 58:333-340, 2000.
- UNAIDS. HIV and Infant Feeding. <http://www.us.unaids.org/highband/document/epidemio/infant.html>
- WHO/UNAIDS/UNICEF. *HIV and Infant Feeding: Guidelines for Decision-makers*. World Health Organization: Geneva, 1998.
- WHO/UNAIDS/UNICEF. *HIV and Infant Feeding: A Guide for Health Care Managers and Supervisors*. World Health Organization: Geneva, 1998.



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